

IN THE CLAIMS

Please amend the claims as follows:

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16. (amended) The reflective optical device according to claim 11, wherein the at least three reflection surfaces are non-axisymmetric surfaces.

17. (amended) The reflective optical device according to claim 11, wherein the reflection surfaces are four surfaces that are a first surface, a second surface, a third surface, and a fourth surface in an order from the object side in a direction in which the light fluxes travel.

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32. (amended) An imaging device, comprising:
the reflective optical device according to claim 1; and
a detecting means that converts a light intensity into an electric signal.

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37. (amended) The multi-wavelength imaging device according to claim 35, wherein the reflective optical device is the reflective optical device comprising two non-axisymmetric reflection surfaces for bringing light fluxes from an object into focus on an image surface, the two non-axisymmetric reflection surfaces being a first reflection surface and a second reflection surface, wherein:

the first and second reflection surfaces are disposed in this order in a direction in which the light fluxes travel, and are arranged eccentrically; and

each of the first and second reflection surfaces is concave in a cross-sectional shape taken along a plane containing a center of the image surface and vertices of the reflection surfaces.

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40. (amended) The multi-wavelength imaging device according to claim 39, wherein the reflective optical device is the reflective optical device comprising two non-

axisymmetric reflection surfaces for bringing light fluxes from an object into focus on an image surface, the two non-axisymmetric reflection surfaces being a first reflection surface and a second reflection surface, wherein:

the first and second reflection surfaces are disposed in this order in a direction in which the light fluxes travel, and are arranged eccentrically; and

each of the first and second reflection surfaces is concave in a cross-sectional shape taken along a plane containing a center of the image surface and vertices of the reflection surfaces.

42. (amended) A vehicle-mounted monitor, comprising:

a multi-wavelength imaging device according to claim 35; and

a display means that conveys an obtained image to a driver.

83. (amended) An imaging device, comprising the reflective optical device

according to claim 43, wherein an imaging element is provided at a portion of the reflective optical device where an image is formed.

85. (amended) An imaging device, comprising the reflective optical device

according claim 43, wherein an imaging element having sensitivity to a visible range is provided at a portion of the reflective optical device where an image is formed.

86. (amended) An imaging device, comprising the reflective optical device

according to claim 43, wherein an imaging element having sensitivity to a visible range and an infrared range is provided at a portion of the reflective optical device where an image is formed.

87. (amended) An imaging device, comprising the reflective optical device

according to claim 67, wherein an imaging element having sensitivity to a visible range and an infrared range is provided at a portion of the reflective optical device where an image is formed.

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88. (amended) An imaging device, comprising the reflective solid-state optical device according claim 77, wherein an imaging element is provided at a portion of the reflective solid-state optical device where an image is formed.

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90. (amended) An imaging device, comprising the reflective solid-state optical device according to claim 81, wherein an imaging element having sensitivity to a visible range and an infrared range is provided at a portion of the reflective solid-state optical device where an image is formed.

Please add the following new claims:

95 96. (new) The reflective optical device according to claim 12, wherein the at least three reflection surfaces are non-axisymmetric surfaces.

96 97. (new) The reflective optical device according to claim 15, wherein the at least three reflection surfaces are non-axisymmetric surfaces.

97 98. (new) The reflective optical device according to claim 12, wherein the reflection surfaces are four surfaces that are a first surface, a second surface, a third surface, and a fourth surface in an order from the object side in a direction in which the light fluxes travel.

98 99. (new) The reflective optical device according to claim 15, wherein the reflection surfaces are four surfaces that are a first surface, a second surface, a third surface, and a fourth surface in an order from the object side in a direction in which the light fluxes travel.

99 100. (new) An imaging device, comprising:
the reflective optical device according to claim 11; and
a detecting means that converts a light intensity into an electric signal.

100 101. (new) An imaging device, comprising:
the reflective optical device according to claim 12; and

a detecting means that converts a light intensity into an electric signal.

101 102. (new) An imaging device, comprising:
the reflective optical device according to claim 15; and

a detecting means that converts a light intensity into an electric signal.

102 103. (new) The multi-wavelength imaging device according to claim 35,
wherein the reflective optical device comprising at least three reflection surfaces for bringing
light fluxes from an object into focus on an image surface, wherein:

the reflection surfaces are arranged eccentrically;

an F value in a plane containing vertices of the respective reflection surfaces is less than
3.5; and

among the reflection surfaces, the two reflection surfaces on the object side are given as
a first reflection surface and a second reflection surface, respectively, in an order from the object
side in a direction in which the light fluxes travel, and each of the first and second reflection
surfaces is concave in a cross-sectional shape taken along the plane.

103 104. (new) The multi-wavelength imaging device according to claim 35,
wherein the reflective optical device comprising at least three reflection surfaces for bringing
light fluxes from an object into focus on an image surface, wherein:

the reflection surfaces are arranged eccentrically; and

an F value in a plane containing vertices of the respective reflection surfaces is less than
1.9.

104 105. (new) The multi-wavelength imaging device according to claim 35,
wherein the reflective optical device comprising at least three reflection surfaces for bringing
light fluxes from an object into focus on an image surface, wherein:

the reflection surfaces are arranged eccentrically;

among the reflection surfaces, the reflection surface placed second from the object side in a direction in which the light fluxes travel is given as a second reflection surface, and the second reflection surface is concave in a cross-sectional shape taken in the vicinity of its vertex along a plane containing vertices of the reflection surfaces, and is convex in a cross-sectional shape taken in a direction perpendicular to the plane.

105 106. (new) The multi-wavelength imaging device according to claim 39, wherein the reflective optical device comprising at least three reflection surfaces for bringing light fluxes from an object into focus on an image surface, wherein:

the reflection surfaces are arranged eccentrically;

an F value in a plane containing vertices of the respective reflection surfaces is less than 3.5; and

among the reflection surfaces, the two reflection surfaces on the object side are given as a first reflection surface and a second reflection surface, respectively, in an order from the object side in a direction in which the light fluxes travel, and each of the first and second reflection surfaces is concave in a cross-sectional shape taken along the plane.

107 107. (new) The multi-wavelength imaging device according to claim 39, wherein the reflective optical device comprising at least three reflection surfaces for bringing light fluxes from an object into focus on an image surface, wherein:

the reflection surfaces are arranged eccentrically; and

an F value in a plane containing vertices of the respective reflection surfaces is less than 1.9.

107 108. (new) The multi-wavelength imaging device according to claim 39,
wherein the reflective optical device comprising at least three reflection surfaces for bringing
light fluxes from an object into focus on an image surface, wherein:

the reflection surfaces are arranged eccentrically;

among the reflection surfaces, the reflection surface placed second from the object side in
a direction in which the light fluxes travel is given as a second reflection surface, and the second
reflection surface is concave in a cross-sectional shape taken in the vicinity of its vertex along a
plane containing vertices of the reflection surfaces, and is convex in a cross-sectional shape taken
in a direction perpendicular to the plane.

REMARKS

The above preliminary amendment is made to remove multiple dependencies from
claims 16-17, 32, 37, 40, 42, 83, 85-88, and 90. New claims 96-108 have also been added. In
addition, typographical errors were removed from the specification. A marked-up copy of the
specification and claims is attached.

A new abstract page is supplied to conform to that appearing on the publication
page of the WIPO application, but the new Abstract is typed on a separate page as required by
U.S. practice.

Applicants respectfully request that the preliminary amendment described herein
be entered into the record prior to calculation of the filing fee and prior to examination and
consideration of the above-identified application.

All
concluded

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